## **REMARKS**

Reconsideration of this application, as amended, is respectfully requested. The Applicants wish to draw the Examiner's attention to the applicants' related co-pending applications and issued patents (see Appendix A) directed to nanoparticles and methods of preparation and use thereof.

Claims 158-161 and 433-465 are pending in this application. Turning to the office action, the Examiner had indicated that claims 464 and 465 were allowable. Claims 158-161, 433, and 435-437 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-10 of U.S. Patent No. 6,417,340. Claims 434, and 438-463 also stand objected as being dependent on a rejected base claim. The Applicants attach a terminal disclaimer and submit that the rejection and objection no longer apply.

In conclusion, the Applicants respectfully submit that in addition to claims 464 and 465, the remaining pending claims in this application are in allowable condition and request a Notice to this effect.

Reconsideration of this application is respectfully requested and a favorable determination is earnestly solicited. The Examiner is invited to contact the undersigned representative if the Examiner believes that this would be helpful in expediting the prosecution of this application.

Dated: May 13, 2004

Emily Miao Reg. No. 35,285

Respectfully submitted.

McDonnell Boehnen Hulbert & Berghoff, Ltd. 300 South Wacker Drive Chicago, IL 60606 Telephone: 312-913-0001

Facsimile: 312-913-0001

## **APPENDIX A**

ATTY	Serial No./		
Case No.	Filing Date	Inventors/Title	Status
Case No. 00-653-A	U.S. 09/927,777 Filed 8/10/01	Inventors/Title  Mirkin, Letsinger,  Mucic, Storhoff,  Elghanian, Taton,  Garamella, Li, Park/  NANOPARTICLES  HAVING  OLIGONUCLEOTI  DES ATTACHED  THERETO AND  USES THEREFORE	ALLOWED
00-713-B1	09/923,625 Filed 8/7/01	Mirkin, Letsinger, Mucic, Storhoff, Elghanian/ NANOPARTICLES HAVING OLIGONUCLEOTI DES ATTACHED THERETO AND USES THEREFOR	ALLOWED
00-713-C	09/344,667, filed 6/25/99	Mirkin, Letsinger, Mucic, Storhoff, Elghanian/ NANOPARTICLES HAVING OLIGONUCLEOTI DES ATTACHED THERETO AND USES THEREFORE	U.S. Patent No. 6,361,944, issued 3/26/02
00-713-I	U.S.S.N 09/603,830 Filed 6/26/00	Mirkin, Letsinger, Mucic, Storhoff, Elghanian, Taton; NANOPARTICLES HAVING OLIGONUCLEOTI DES ATTACHED THERETO AND USES THEREFOR	U.S. Patent No. 6,506,564, issued 1/14/03
00-713-I-1	09/961,949 9/20/01	Mirkin, Letsinger, Mucic, Storhoff, Elghanian, Taton;	U.S. Patent No. 6,582,921, issued June 24, 2003

ATTY	Serial No./		1 age
Case No.	Filing Date	Inventors/Title	Status
		NANOPARTICLES	
		HAVING	
		OLIGONUCLEOTI	
		DES ATTACHED	
		THERETO AND	
		USES THEREFOR	
00-713-I-2	09/957,318 9/20/01	See 00-713-I-1	ALLOWED
00-713-I-3	09/957,313 9/20/01	See 00-713-I-1	U.S. Patent No. 6,645,721, issued 11/11/03
00-713-I-4	09/966,491 9/28/01	See 00-713-I-1	U.S. Patent No. 6,610,491, issued August 26, 2003
00-713-I-5	09/966,312 9/28/01	See 00-713-I-1	U.S. Patent No. 6,673,548, issued January 6, 2004
00-713-I-6	09/967,409 9/28/01	See 00-713-I-1	U.S. Patent No. 6,740,491, issued May 24, 2004
00-713-I-7	09/97 <b>4,</b> 500 10/10/01	See 00-713-I-1	U.S. Patent No. 6,709,825, issued March 23, 2004
00-713-I-8	09/974,007 10/10/01	See 00-713-I-1	PENDING
00-713-I-9	09/973,638 10/10/01	See 00-713-I-1	PENDING
00-713-I- 10	09/973,788 10/10/01	See 00-713-I-1	U.S. Patent No. 6,720,411, issued April 13, 2004
00-713-I- 11	09/975,062 10/11/01	See 00-713-I-1	U.S. Patent No. 6,677,122, issued January 13, 2004
00-713-I- 12	09/975,376 10/11/01	See 00-713-I-1	PENDING
00-713-I- 13	09/975,384 10/11/01	See 00-713-I-1	PENDING

ATTY	Serial No./		Fag
Case No.	Filing Date	Inventors/Title	Status
Case No.	Fining Date	Inventors/Title	Status
00.513.1	00/075 400	0 00 710 11	477077755
00-713-I-	09/975,498	See 00-713-I-1	ALLOWED
14	10/11/01		
00-713-I-	09/975,059	See 00-713-I-1	ALLOWED
15	11/11/01		
00-713-I-	09/976,601	See 00-713-I-1	PENDING
16	10/12/01		
10	10,12,01		
00-713-I-	09/976,968	See 00-713-I-1	ALLOWED
17	10/12/01	366 00-713-1-1	ALLOWED
17	10/12/01		
00 512 7	00/07/ 071	0.00.710.71	TT C D
00-713-I-	09/976,971	See 00-713-I-1	U.S. Patent No.
18	10/12/01		6,682,895, issued
			1/27/04
00-713-I-	09/976,863	See 00-713-I-1	PENDING
19	10/12/01		
00-713-I-	09/976,577	See 00-713-I-1	U.S. Patent No.
20	10/12/01		6,720,147, issued
			April 13, 2004
00-713-I-	09/976,618	See 00-713-I-1	ALLOWED
21	10/12/01	See 00-713-1-1	ALLOWED
21	10/12/01		
00 713 I	00/001 244	0 00 712 7 1	ALLOWED
00-713-I-	09/981,344	See 00-713-I-1	ALLOWED
22	10/15/01		
00-713-I-	09/976,900	See 00-713-I-1	PENDING
23	10/12/01		
00-713-I-	09/976,617	See 00-713-I-1	U.S. Patent No.
24	10/12/01		6,730,269, filed
			May 4, 2004
			1,2001
00-713-I-	09/976,378	See 00-713-I-1	PENDING
25	10/12/01	300 00-713-1-1	LEMPING
43	10/12/01		
00.713 :	10/410 224	C 00 712 T 1	DEMBRIC
00-713-i-	10/410,324	See 00-713-I-1	PENDING
26	04/10/03		
00-713-L	U.S.S.N.	Mirkin, Letsinger,	U.S. Patent No.
	09/693,005	Mucic, Storhoff,	6,495,324, issued
	Filed 10/20/00	Elghanian/	12/17/02
		NANOPARTICLES	
	L	THEOLIGICAL	<u> </u>

Name
HAVING   OLIGONUCLEOTI   DES ATTACHED   THERETO AND   USES THEREFORE
DES ATTACHED THERETO AND USES THEREFORE
THERETO AND USES THEREFORE
U.S. THEREFORE
O0-713-M
09/693,352
Filed 10/20/00   Elghanian/   NANOPARTICLES   HAVING   OLIGONUCLEOTI   DES ATTACHED   THERETO AND   USES THEREFORE
NANOPARTICLES HAVING OLIGONUCLEOTI DES ATTACHED THERETO AND USES THEREFORE  O0-714-G U.S. 09/830,620 Filed 8/15/01 NANOPARTICLES WITH POLYMER SHELLS  O0-715-A U.S. 09/760,500 Filed 1/12/01 Mirkin, Letsinger, Mucic, Storhoff, Elghanian, Taton; Garamella, Li/ METHOD OF ATTACHING OLIGONUCLEOTI DES TO NANOPARTICLES AND PRODUCTS PRODUCED THEREBY  O0-1085-A U.S.S.N. O9/820,279 Mirkin, Letsinger, etc./ METHOD AND
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00-714-G         U.S. 09/830,620 Filed 8/15/01         Mirkin, Nguyen/ NANOPARTICLES WITH POLYMER SHELLS         PENDING           00-715-A         U.S. 09/760,500 Filed 1/12/01         Mirkin, Letsinger, Mucic, Storhoff, Elghanian, Taton; Garamella, Li/ METHOD OF ATTACHING OLIGONUCLEOTI DES TO NANOPARTICLES AND PRODUCTS PRODUCED THEREBY         ALLOWED           00-1085-A         U.S.S.N. Mirkin, Letsinger, etc./ METHOD AND         ALLOWED
Filed 8/15/01  NANOPARTICLES WITH POLYMER SHELLS  00-715-A  U.S. 09/760,500 Filed 1/12/01  Mirkin, Letsinger, Mucic, Storhoff, Elghanian, Taton; Garamella, Li/ METHOD OF ATTACHING OLIGONUCLEOTI DES TO NANOPARTICLES AND PRODUCTS PRODUCED THEREBY  00-1085-A  U.S.S.N. 09/820,279  Mirkin, Letsinger, etc./ METHOD AND
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O0-715-A  U.S. 09/760,500 Filed 1/12/01  Mucic, Storhoff, Elghanian, Taton; Garamella, Li/ METHOD OF ATTACHING OLIGONUCLEOTI DES TO NANOPARTICLES AND PRODUCTS PRODUCED THEREBY  O0-1085-A  U.S.S.N. 09/820,279  Mirkin, Letsinger, Mucic, Storhoff, Elghanian, Taton; Garamella, Li/ METHOD OF ATTACHING OLIGONUCLEOTI DES TO NANOPARTICLES AND PRODUCTS PRODUCED THEREBY  ALLOWED
Filed 1/12/01  Mucic, Storhoff, Elghanian, Taton; Garamella, Li/ METHOD OF ATTACHING OLIGONUCLEOTI DES TO NANOPARTICLES AND PRODUCTS PRODUCED THEREBY  00-1085-A  U.S.S.N. 09/820,279  Mucic, Storhoff, Elghanian, Taton; Garamella, Li/ METHOD OF ATTACHING OLIGONUCLEOTI DES TO NANOPARTICLES AND PRODUCTS PRODUCED THEREBY  ALLOWED
Elghanian, Taton; Garamella, Li/ METHOD OF ATTACHING OLIGONUCLEOTI DES TO NANOPARTICLES AND PRODUCTS PRODUCED THEREBY  O0-1085-A U.S.S.N. O9/820,279 Mirkin,Letsinger, etc./ METHOD AND
Garamella, Li/ METHOD OF ATTACHING OLIGONUCLEOTI DES TO NANOPARTICLES AND PRODUCTS PRODUCED THEREBY  00-1085-A U.S.S.N. 09/820,279 Mirkin,Letsinger, etc./ METHOD AND
METHOD OF ATTACHING OLIGONUCLEOTI DES TO NANOPARTICLES AND PRODUCTS PRODUCED THEREBY  00-1085-A U.S.S.N. 09/820,279 Mirkin,Letsinger, etc./ METHOD AND
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00-1085-A         U.S.S.N.         Mirkin,Letsinger, etc./ METHOD AND         ALLOWED
00-1085-AU.S.S.N. 09/820,279Mirkin,Letsinger, etc./METHOD ANDALLOWED
09/820,279 etc./ METHOD AND
Filed 5/26/01   MATERIALS FOR
ASSAYING
BIOLOGICAL
MATERIALS
00-1085-G U.S.S.N. Mirkin, Letsinger,
10/640,618   Wilkin, Letsinger, etc./ METHOD AND
Filed 8/13/03 MATERIALS FOR
ASSAYING
BIOLOGICAL
MATERIALS
<b>00-1086-A</b> U.S. 09/903,461 Letsinger, Garimella/ U.S. Patent No.
Filed 7/11/01 METHOD OF 6,602,669,

ATTY	Serial No./		rag
Case No.	Filing Date	Inventors/Title	Status
Case 110.	rining Date	DETECTION BY	Filed 8/5/03
		ENHANCEMENT	Filed 6/3/03
		OF SILVER	
		STAINING	
00-1272-C	U.S.S.N.		DENIDDIC
00-12/2-C	10/008,978	Mirkin, Letsinger,	PENDING
	Filed 12/7/01	Mucic, Storhoff,	
	F1160 12///01	Elghanian, Taton,	
		Garimella, Li, Park,	
		Lu/	
		NANOPARTICLES	
		HAVING	
		OLIGONUCLEOTI	
		DES ATTACHED	
		THERETO AND	
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01-565-A	USSN 10/125,194	Mirkin, Nguygen,	PENDING
	Filed 4/18/02	Watson, Park/	
		OLIGONUCLEOTI	
		DE-MODIFIED	
		ROMP POLYMERS	
		AND CO-	
		POLYMERS	
01-599-A	U.S.S.N.	Storhoff/NOVEL	PENDING
	10/291,291	THIOL-BASED	
	Filed 11/08/02	METHOD FOR	
		ATTACHING	
		OLIGONUCLEOTI	
		DES TO	
		NANOPARTICLES	
01-661-A	U.S.S.N.	Mirkin, Cao, Jin/	PENDING
	10/034,451	DNA-MODIFIED	
	Filed 12/28/01	CORE-SHELL	
		AG/AU	
		NANOCRYSTALS	
01-661-C	U.S.S.N.	Mirkin, Cao, Jin/	PENDING
	10/153,483	DNA-MODIFIED	
	Filed 5/22/02	CORE-SHELL	
		AG/AU	
		NANOCRYSTALS	
01-661-E	U.S.S.N.	Mirkin, Cao, Jin/	PENDING
	10/397,579	DNA-MODIFIED	
	3/26/03	CORE-SHELL	
		AG/AU	
		NANOCRYSTALS	

ATTY	Serial No./		1 age
Case No.	Filing Date	Inventors/Title	Status
01-1565-A	U.S.S.N. 10/266,983 Filed 10/08/02	Park, Taton, Mirkin/ARRAY- BASED ELECTRICAL DETECTION OF DNA USING NANOPARTICLE	PENDING
01-1633-A	U.S.S.N. 10/266,983 Filed 10/8/02	PROBES Park, Taton, Mirkin/NANOPARI CLES HAVING OLIGONUCLEOTI DES ATTACHED THERETO AND USES THEREFOR	PENDING
01-1705-A	U.S.S.N. 10/108,211 Filed 3/27/02	Nam, Park, Mirkin/BIO- BARCODES BASED ON OLIGONUCLEOTI DE-MODIFIED NANOPARTICLES	PENDING
02-338-В	USSN 10/172,428 Filed 6/14/02	Cao, Jin, Nam, Mirkin/MULTICHA NNEL DETECTION USING NANOPARTICLE PROBES WITH RAMAN SPECTROSCOPIC FINGERPRINTS	PENDING
02-338-C	10/431,341 5/7/03	Cao, Jin, Nam, Mirkin/MULTICHA NNEL DETECTION USING NANOPARTICLE PROBES WITH RAMAN SPECTROSCOPIC FINGERPRINTS	PENDING